| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/842,182 | 04/26/2001 | Takeshi Kunimasa | 046601-5091 | 7273 |

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| EXAMINER |
|---|
| COUSO, YON JUNG |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2625 | |

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/842,182 - | KUNIMASA ET AL. |
| | Examiner | Art Unit |
| | Yon Couso | 2625 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>19 October 2005</u>.

2a)☒ This action is **FINAL**.     2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-23</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-5, 7-12, 14-23</u> is/are rejected.

7)☒ Claim(s) <u>6 and 13</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

1.      Applicant's arguments filed October 19, 2005 have been fully considered but they

are not persuasive.

        a. The applicants argue that Hiraishi does not discloses image processing

section 16 which is adapted to provide the output image data to the engine/interface 12,

nor the comparison/determination section 18 and the recognition section 15 connect to

the output image data sending unit. The examiner noted that Hiraish discloses image

processing section 16 along with image processing section 11 directly provide the

output image data to the engine/interface 12, or the comparison/determination section

18 and the recognition section 15 connect to the output image data sending unit (figure

11).

        b. the applicants argue that the Hiraishi appear to start printing out the non-

reproducible image on at least the first page without confirming the presence of the non-

reproducible image in the input image data. The examiner notes that Hiraishi discloses

that the output data generation unit waits to transmit the output image data to the output

image data sending unit until the recognition unit completes the recognition process

(column 10, line 54-column 11, line 23 and figure 11).

2.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

Claims 1, 7, 8, 14-20, and 22 are rejected under 35 U.S.C. 102(e) as being

anticipated by Hiraishi et al (US Patent No. 6,538,759).

As for claims 1 and 8, Hiraishi teaches san image processing device, comprising:

an output image data generation unit that performs a generation process to generate

output image data from input image data (column 1, lines 31-34) and transmits the

output image data to an output image data sending unit (12 in figure 11); the output

image data sending unit that transmits the output image data generated by the output

image data generation unit to an image formation device (output (print) in figure 11); a

converting unit that performs a converting process to convert the input image data into

recognition image data (15 in figure 11); and a recognition unit that performs a

recognition process to recognize a specific image from the converted recognition image

data, wherein the output data generation unit waits to transmit the output image data to

the output image data sending unit until the recognition unit completes the recognition

process (column 10, line 54-column 11, line 23 and figure 11).

As for claims 7, 14 and 18, Hiraishi teaches that when a result of recognition by

the recognition unit indicates the existence of the specific image, the output image data

generation unit stops generation or output of the output image data is provided by

Hiraishi in at least the paragraph bridging cols. 5-6, the third full paragraph in c. 6, the

paragraph bridging cols. 9-10, and the first full paragraph in c. 10, for example.

As for claim 15, Hiraishi teaches a storage medium readable by a computer, the

storage medium storing a program of instructions executable by the computer to

perform a function for recognizing a specific image from input image data, the function

comprising: transmitting the output image data to an output image sending unit (12 in figure 12); transmitting the output image data from the output image data sending unit to an image formation device (output (print) in figure 11); generating output image data from an input image data (column 1, lines 31-34); converting the input image data into recognition image data (15 in figure 11); and recognizing the specific image by using the converted recognition image data, wherein the process of generating the output data waits to transmit the output image data to the output image data sending unit until the process of recognizing the specific image is complete (column 10, line 54-column 11, line 23 and figure 11).

As for claims 16, 17, and 19, Hiraishi teaches that when the recognition unit recognizes the specific image, the output image data generation unit stops the generation or output of the output image data, even if the recognition process on an entirely of the converted recognition image data has not completed (column 10, line 54-column 11, line 23).

As for claim 20, see claims 1, 16, 17, and 19 above.

As for claim 22, Hiraishi teaches an image processing device comprising: an output image data generation unit that performs a generation process to generate output image data from input image data (column 1, lines 31-34) and transmits the output image data to an output image data sending unit (12 in figure 11); the output image data sending unit that transmits the output image data generated by the output image data generation unit to formation device (output (print) in figure 11); a converting unit that performs a converting process to convert the input image data into recognition

image data (15 in figure 11); and a recognition unit that performs a recognition process

to recognize a specific image from the converted recognition image data (11, 16, and 18

in figure 11), wherein when the recognition process is performed in parallel with the

generation process, and the output image data generation unit waits to transmit the

output image data to the output image data sending unit until the recognition unit

completes the recognition process (column 8, line 44-column 9, line 2; column 10, line

54-column 11, line 23).

3.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between
> the subject matter sought to be patented and the prior art are such that the
> subject matter as a whole would have been obvious at the time the invention
> was made to a person having ordinary skill in the art to which said subject
> matter pertains. Patentability shall not be negatived by the manner in which
> the invention was made.

Claims 3-5, 10-12, 21, and 23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hiraishi et al.

The arguments advanced in paragraph 2 above as to the applicability of the

reference are incorporated herein.

Hiraishi does not teach details on a color space, resolution, or the number of bits

used to represent a pixel of an image formed by the output image data and that of an

image formed by the recognition image data are different from each other. However,

Hiraishi clearly teaches comparison and determination section where those differences

are determined by comparison (18 in figure 11). It would have been obvious to one of

ordinary skill in the art to represent image in different color space, resolution, and/or the

number of bits used to represent a pixel since they are fundamental attributes in representing images.

As for claims 21 and 23, even though Hiraishi does not teach details on the converting process is performed in parallel with the generation process, and the output image data generation unit is adapted to wait until the recognition unit completes the recognition process for performing an image process subsequent to the generation process or when the converting process and recognition process are performed in parallel with the generation process, and the output image data generation unit is adapted to wait until the recognition unit completes the recognition process for performing an image process subsequent to the generation process. However, Hiraishi clearly teaches when the recognition process is performed in parallel with the generation process, and the output image data generation unit is adapted to wait until the recognition unit completes the recognition process for performing an image process subsequent to the generation process (see figure 11). It would have been obvious to one of ordinary skill in the art to configure the converting process performs in parallel with the generation process and/or converting process and recognition process perform in parallel with the generation process. It is old and well-known in the art that the parallel processing would increase the process speed. Given the reference, when the each element is taught, it would have been obvious to one of ordinary skill in the art to reconfigure the elements and connect them parallel. The motivation to do so would be speed, namely efficiency.

4.      Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hiraishi et al. 6,538,759, as applied to claims above, and further in view of Bloomquist

et al., 6,594,034.

The arguments advanced in paragraph 2 above as to the applicability of the

reference are incorporated herein.

For claims 2 and 9, an image processing device according to claim 1, wherein

the output image data generation unit generates output image data in a page

description language format from the input image data is not explicitly provided by

Hiraishi, although Hiraishi does provide for generating output data.  One very common

output data format is the page description language (PDL), which itself is a general term

encompassing any one of a number of different PDLs.  Bloomquist provides for PDL in

at least the paragraph bridging cols. 1-2 and the paragraph bridging cols. 6-7 for

example.  Hiraishi can use the PDL of Bloomquist for output to the printer interface

block 12 in Fig. 1 of Hiraishi for example.  It would've been obvious to one having

ordinary skill in the art at the time the invention was made to use the PDL format for

outputting to the printer interface of Hiraishi, since the PDL is a conventional and well

known format that provides for at least the advantages of faster file transfer, since the

PDL file size is significantly smaller that raster and are also machine independent, so

that an print engine or other device which understands PDL can produce an image

therefrom.  The converting unit converts the input image data into recognition image

data in a raster image format is considered provided by Hiraishi, since the data is

basically in printable form (e.g. binary/bitmap; i.e. raster format).  See Hiraishi in the

paragraph bridging cols. 4-5, the first full paragraph in c. 5, and the second full paragraph in c. 8, and Figs. 4A-6B showing data that can be printed, and Bloomquist explicitly recites raster where cited above.

5.      Claims 6 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6.      **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
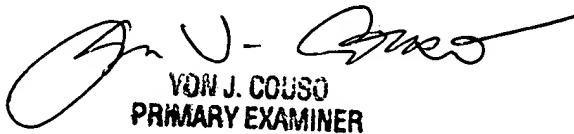
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7.      Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (571) 272-7448. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

YJC

VON J. COUSO
PRIMARY EXAMINER

January 9, 2006